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Notice of Allowability	Application No.	Applicant(s)	
	10/633,605	NIKITIN ET AL.	
	Examiner	Art Unit	
	Kara E. Geisel	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 26 October 2005.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

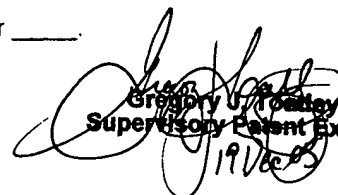
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>1205</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


Gregory J. Rowley, Jr.
Supervisory Patent Examiner

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ilya Zoborovsky on December 15th, 2005.

The application has been amended as follows:

In regards to claims 1, and 4-7, it appears that there were unintentional changes to the original claims. In order to keep the amendment from being non-compliant, applicant has agreed to have the examiner change the unintentional changes back to the original claims, and keep the noted amendments in these claims to put the case in condition for allowance. The amended claims appear below:

1. A method of calibration of magnification of a microscope with the use of a diffraction grating, comprising the steps of determining a mean period of a diffraction grating by irradiating the diffraction grating with an electromagnetic radiation having a known wavelength and analyzing a resulting diffraction pattern; determining a scattering of individual values of a period of the diffraction grating by multiple measurements of periods of the diffraction grating by a microscope in pixels in one area in a microscope field of view; calculating a mean value of the period and the scattering based on the measurements; determining a sufficient number of measurements of the period for providing an accepted statistic error of a magnification of the microscope; performing measurements corresponding to the determined acceptable number of measurements, of individual values of the period in pixels in a plurality of portions of the diffraction grating; calculating a general mean value of the period in pixels based on an immediately preceding step; and finally calculating a parameter corresponding to the magnification of the microscope based on the determined mean value of the period of the diffraction grating.

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4. A method as defined in claim 1, wherein said determining of a mean period of the diffraction ~~grate~~ grating is performed in accordance with the formula:

$$T_0 = \frac{m\lambda}{\sin \theta_m}$$

wherein m is an order of diffraction, λ a wavelength of a used monochromatic radiation which is known with high accuracy, θ_m is an angle of diffraction for radiation measured which is diffracted in the m order.

5. A method as defined in claim 4, wherein said determining of the ~~scattering and determining of~~ the mean value of the period T_{AVE} and ~~determining of the scatter~~ ω is performed in accordance with the formulas:

$$T_{AVE} = \frac{\sum_{i=1}^N T_i}{N}$$

$$\omega = \sqrt{\frac{\sum_{i=1}^N (T_i - T_{AVE})^2}{N}}$$

wherein i is the number of measurement, N is a number of performed preliminary measurements, T_i is an individual period value, and T_{AVE} T_i and ω are measured in pixels.

6. A method as defined in claim 5, wherein said determining of the sufficient number of measurements is performed in accordance with the formula:

$$K \geq \left(\frac{\omega}{\sigma T_{AVE}} \right)^2$$

where σ is the acceptable calibration error.

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7. A method as defined in claim 6, wherein said calculation of the general mean value of the periods is performed in accordance with the formula:

$$T_{\text{GEN}} = \frac{\sum_{i=1}^K T_i}{K}$$

Examiner's Reasons for Allowance

Claims 1-9 are allowed over the prior art of record for the reasons set forth in the previous Office Action (paper number 0905).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

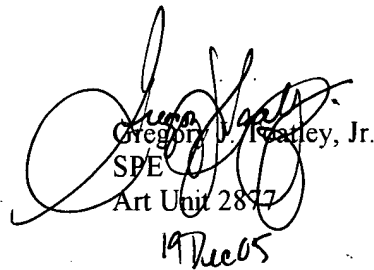
Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is 571 272 2416. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571 272 2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gregory V. Leakey, Jr.
SPE
Art Unit 2877
19 Dec 05


KEG
December 6, 2005